

XXXVIII.—*New Chilopods of the Genus Mecistocephalus.*

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[Plates IX.—XII.]

*Mecistocephalus celebensis*, sp. n.

(Pl. IX. figs. 1-9.)

Body fulvous to light brown, without darker markings or mottling. Head and prehensorial segment chestnut. Antennæ light chestnut. Legs fulvous.

Head nearly 1.75 times longer than wide. Sides straight and only slightly converging, subparallel from frontal suture back to the beginning of the more abrupt posterior narrowing. Caudal margin truncate, wide. Anterior margin straight, less angularly produced forward than in *cephalotes* (Pl. IX. fig. 1). No non-areolate chitinous spots in front of paired clypeal areas.

Labrum suggesting that of *M. cephalotes*, but the median piece somewhat broader, less overlapped toward caudal end, and the lateral pieces incurving at mesal ends (*cf.* Pl. IX. figs. 2 & 10). The free margin of each lateral piece incurves more at outer end, where also the fringe of hairs is exposed for a considerable distance, whereas this is wholly covered in *cephalotes* and related forms.

Mandible with twelve pectinate lamellæ, of which the last two are successively much reduced in length and are more membranous (*cf.* Pl. IX. fig. 4). First lamella with seven uniform teeth, these stouter than those of the other two lamellæ (Pl. IX. fig. 5). Teeth of ordinary lamellæ long at distal end, but from near middle of lamella proximad strongly reduced (Pl. IX. fig. 6). A median lamella with thirty-seven or thirty-eight teeth.

Coxosternum of second maxillæ with posterior angles divergent, acute. Segmental pore large, subcircular. Ectal angles of coxæ of first maxillæ scarcely produced, subrectangular or but slightly acute (Pl. IX. fig. 3).

Exposed part of prosternum 1.36 times wider than long. Anterior border of prosternum with the usual two rounded teeth. Femuroid with two teeth, both of which are blunt, the distal one the stouter. Two next joints each with a rounded tooth, of which that of the second is obviously stouter. Claw with a small but distinct tooth at base above the ordinary protuberance (Pl. IX. fig. 7).

First legs exceptionally small, the second being two and two-thirds longer.

Impressions of anterior sternites furcate, the angle between branches obtuse, becoming more so in going caudad, the two branches in some forming nearly a straight line, disappearing in posterior region as usual (*cf.* Pl. IX. figs. 8 & 9).

Pregenital segment with sternite somewhat shield-shaped, narrowed in front of caudal end. Coxopleuræ with numerous small pores uniformly arranged, less numerous minute ones intervening. Last legs about two and a fourth times as long as the penult ones.

Number of segments, 49.

Length, to 60 mm. ; width of first tergite 3 mm.

*Locality.*—Celebes : Bua-Kraeng, 5000 ft. (*Frühstorfer*, Feb. 1896). Type and paratypes in U.S. National Museum; paratypes also in Mus. Comp. Zool. at Cambridge, Mass.

*Mecistocephalus philippinus*, sp. n.  
(Pl. IX. fig. 11 ; Pl. X. figs. 1-8.)

Colour brown, darkened by a dense network or marbling of black, which is also evident in the pleural region and less pronouncedly on the sternites. Head with antennæ and prehensorial segment chestnut. Legs fulvous.

Head proportionately broader than in *celebensis* and *cephalotes*, being 1.6 times longer than wide. The anterior margin is weakly bowed forward, less nearly truncate than in *celebensis* and less produced than in *cephalotes*. The sub-lateral teeth or spurs are farther forward than usual (Pl. X. fig. 1).

Antennæ strongly attenuated, the articles proportionately rather broad, the sixth being typically as broad distally as the length. Ultimate article decidedly longer than the preceding one.

Exposed portion of median piece of labrum conspicuously narrowed caudad. Free margin of each lateral piece straighter than in *celebensis* and *cephalotes*, not bending in at mesal ends, as in the latter species, and with no line of hairs showing at outer ends.

Mandible with thirteen or fourteen primary lamellæ. First lamella with seven stout and subuniform teeth. Mesal margin of mandible below this lamella with only three to five weak serrations below the angle (Pl. X. fig. 4). A median lamella has the teeth of the distal region long and slender, those of proximal half much reduced, though rather

longer than in *celebensis*; teeth in number near forty-three to forty-five. The abidental edge of the ordinary lamellæ has a characteristic obtuse angulation near base (Pl. X. fig. 5).

Maxillæ resembling those of *celebensis*; but posterior processes of coxosternum of second pair less acute, more rounded, slightly bending mesad at caudal end, the segmental pore triangular in outline, a more chitinous median band separated off from the lateral areas. Coxæ of first maxillæ with ectal angles scarcely produced, subrectangular (Pl. X. fig. 3).

Prosternum with teeth of anterior margin well-developed. Femuroid with two teeth, which are subacute and of which the second or more distal is characteristically much stouter and longer, this being a feature by which the species is ordinarily readily recognizable. Next two joints also armed, the tooth of the second the larger. Claw with a distinct tooth at base above the ordinary prominence (Pl. X. fig. 6).

Second legs twice as long as the first.

Impressions of anterior sternites furcate, the angle obtuse, the angle rather more obtuse in the more posterior of the furcate ones (Pl. X. figs. 7 & 8).

Sternite of pregenital segment trapeziform, the sides moderately converging caudad, and the plate typically abruptly much narrowed near caudal end (Pl. IX. fig. 11). Coxopleure with very numerous small and very small pores, the smaller ones much the more numerous. Ultimate legs about two and a fourth times as long as the penult.

Number of pairs of legs, 49.

Length 88 mm.; width of first tergite 3.2 mm.

*Locality*.—Philippine Is.: Luzon: Los Baños; Mt. Makeling (C. F. Baker coll.). Types and paratypes in Mus. Comp. Zool. Cambridge, Mass.

This seems to be a common species about Los Baños.

*Mecistocephalus nagasaunus*, sp. n.  
(Pl. X. figs. 9-11; Pl. XI. figs. 1-4.)

Colour in general fulvous, more orange-coloured anteriorly. Head and prehensorial segment dark orange or light chestnut.

Head much broadest anteriorly, conspicuously narrowed caudad. Anterior margin obtusely angular, notched at middle. Posterior margin wide, very slightly convex or essentially truncate. Head 1.6 times longer than wide

(Pl. X. fig. 9). Anterior areolated band of clypeal region longer than the paired posterior areas. Sublateral teeth large, acute (Pl. XI. fig. 1).

Median piece of labrum not or scarcely overlapped laterally by the lateral pieces, moderately narrowed caudad, the caudal end triangular. Lateral pieces with caudomesal corners characteristically broadly rounded. Anterior edges of lateral pieces when produced forming a pronounced obtuse angle. Margins wholly smooth (Pl. XI. fig. 2).

Posterior corners of coxosternum of second maxillæ acutely produced; entire region caudad of pores and a broad median band areolate. Pores narrowly elliptic. Ectal angles of coxæ of first maxillæ elevated and broadly rounded (Pl. XI. fig. 3).

Mandible with six lamellæ, of which the first has six teeth. Mesal corner below first lamella acutely produced, the margin entire (Pl. XI. fig. 4). Teeth of median lamellæ all long, not reduced at proximal end, typically near fifteen in number.

Antennæ moderately attenuated. Last article clearly longer than the penult, but shorter than the penult and antepenult together. Sixth article longer than wide at distal end, in about ratio 5 : 4.

Exposed area of prosternum wider than long, in ratio 9 : 7. Anterior margin with the two teeth normally developed. Femuroid with two teeth, these rather broad, low and rounded, the distal one the larger. Next two joints also bearing teeth, of which the second is decidedly the larger. Claw with angulation at base, but without distinct tooth above this (Pl. X. fig. 10).

First leg about three-fifths as long as the second.

Sternal impressions of anterior segments furcate, but the branches very short; angle obtuse; branches disappearing caudad as usual (Pl. X. fig. 11).

Sternite of pregenital segment broad anteriorly, strongly narrowed caudad, almost triangular, the caudal end rather narrowly rounded. Coxopleuræ with a moderate number of small pores, the total number on each side being twenty of which about twelve are visible in strictly ventral view. Anal pores distinct. Last legs about twice as long as the penult.

Pairs of legs, 49.

Length about 23 mm.

*Locality*.—Fiji Is.: Nagasau (W. M. Mann coll.).

Type in Mus. Comp. Zool. (No. 2161).

*Mecistocephalus medius*, sp. n.  
(Pl. XI. figs. 5-11.)

Dorsum fulvous, of slight ferruginous tinge. Legs fulvous. Head and prehensorial segment chestnut.

Head widest anteriorly, the sides moderately converging caudad, more strongly so adjacent to posterior corners. Anterior margin widely rounded. Posterior margin broad, slightly bowed (Pl. XI. fig. 5). Head in type 1.68 times longer than wide.

Median piece of labrum broadly sublanceolate. Anterior margin of lateral pieces, when projected to meet forming a straight line at middle, curving caudad of ectad at outer ends. Free margins of lateral pieces concave in ectal region, convex mesad of middle, with mesal angles as shown in Pl. XI. fig. 7. Anterior pieces only a little narrower at mesal ends than at the ectal.

Areolated area of elypeus much longer than the non-areolated posterior paired bands. Median dividing band rather wide. Sublateral teeth as shown in Pl. XI. fig. 6.

Mandible with seven lamellæ, counting the much reduced ectal one. First lamella with five characteristically long teeth (Pl. XI. fig. 9). Median lamella with about fifteen teeth, all long, the proximal ones more loosely arranged.

Areolated area of coxosternum of second maxillæ large, the median band very broad. Pores narrowly subelliptic. Ectal corners of coxæ of first maxillæ only slightly elevated, rounded. Setæ of maxillæ as shown in figure. Distal joint of palpus characteristically bluntly rounded, the claw much reduced (Pl. XI. fig. 8).

Teeth on anterior margin of prosternum very small. Claw of prehensors exceptionally slender, tooth at base prominent. Femuroid with the usual two teeth, of which the distal is the larger and projects distad of mesad. The succeeding joint bears no tooth, but the next one bears a prominent tooth at its distal edge, which projects distad of mesad (Pl. XI. fig. 10).

Impressions of anterior sternites furcate, the branches forming an obtuse angle (Pl. XI. fig. 11).

Posterior portion of body of type missing, hence the total length and the number of segments cannot be given.

Width of first tergite 1.2 mm.

*Locality*.—Solomon Is.; Ngi (*W. M. Mann*).

Type in Mus. Comp. Zool. at Cambridge, Mass.

This is a strongly marked species, readily recognizable by the bluntly rounded distal joint of the palpus of the second maxillæ, the form of the labrum, slender claw of the prehensors, with absence of tooth from third joint of latter, etc.

*Mecistocephalus apator*, sp. n.  
(Pl. XII. figs. 1-6.)

Head and prehensors blackish. Body fulvous, orange in anterior region.

Head differing considerably in form from that of *monticolens*, which the species resembles, being anteriorly truncate, more gradually narrowed caudad. Posterior margin truncate. Head 1.85 times longer than wide.

The setæ of the clypeal region are similar in number and position to those of *monticolens*, as these are shown in Pl. XII. fig. 8. The sublateral spurs are stouter and less bent mesad.

Labrum somewhat similar in general form to that of the Javan *monticolens*; but the exposed part of the median piece has the sides straight or concave instead of convex, and the free margins of the lateral pieces round in cephalad at mesal ends instead of projecting in tooth-like angles (Pl. XII. fig. 2; cf. Pl. XII. fig. 9).

Mandible with a total of seven lamellæ. Of these the first has six stouter teeth (Pl. XII. fig. 4). A median lamella has twelve long teeth, these subuniform in length.

The areolated region of the coxosternum of the second maxillæ large, the median band broad; but in this species the non-areolated region on each side extends caudad of the segmental pores. Ectal angles of coxæ of first maxillæ moderately produced forwards (Pl. XII. fig. 3).

The teeth of the prosternum are small though distinct and larger than in *monticolens*. The two normal teeth of femuroid present. Of these the more proximal one is low, broad, and rounded; the distal one is longer and is distally subtruncate. The next two joints also armed, the tooth of the second one the larger. No distinct tooth at base of claw above the basal angulation (Pl. XII. fig. 5).

Sternal impressions simple longitudinal furrows, with no distinct furcation.

Sternite of pregenital segment trapeziform, strongly narrowed caudad. Coxopleural pores of moderate size, well separated, about twenty-five on each side.

Pairs of legs, 49.

Length of type near 35 mm.

*Locality*.—Bua-Kraeng, 5000 ft. (*Frühstorfer*, Feb. 1896).  
Three specimens, U.S. National Museum.

*Mecistocephalus monticolens*, sp. n.

(Pl. XII. figs. 7-11.)

Dorsum light or fulvous brown with some darker marbling. Legs fulvous. Head and prehensorial segment chestnut.

Head of the usual general shape, but more strongly narrowed over posterior half than usual. Proportionately long, being 1.8 times longer than the greatest width. Anterior margin obtusely angular, the posterior subtruncate (Pl. XII. fig. 7).

Clypeal region without anterior chitinous, non-areolated spots. Sublateral teeth curving characteristically mesad (Pl. XII. fig. 8).

Median piece of labrum somewhat wedge-shaped, but the sides a little convex and the caudal end notched, projecting beyond lateral pieces. Anterior margins of lateral pieces when extended to meet forming an obtuse angle. Caudal margins concave in outer part, convex in mesal, as shown in Pl. XII. figs. 8 & 9. Anterior pieces strongly narrowed mesad.

In the type the prosternal teeth are present only as exceedingly minute rudiments. The femuroid has the usual two teeth, of which the distal is much the larger, is distally rounded, and is bent distad. The next two joints are armed with rounded teeth, that of the second being the larger. Claw with a rounded nodule above the principal basal prominence or angulation (Pl. XII. fig. 10).

The impressions of the anterior sternites scarcely truly furcate, on some there being no trace of branches, but on others very short branches are discernible, these making a more or less obtuse angle (Pl. XII. fig. 11).

Sternite of pregenital segment strongly narrowed caudad, almost triangular, the posterior end narrowly rounded, constricted a little in front of caudal end. Coxopleural pores moderately large in size and comparatively few in number, about twenty on each side in the type.

Pairs of legs, 49.

Length of type about 35 mm.

*Locality*.—Java: Gedé, 9000 ft., Sept. 1892. U.S. National Museum.